

## ABSTRACT OF THE DISCLOSURE

The invention provides a general fabrication method for producing MicroElectroMechanical Systems (MEMS) and related devices using Silicon-On-Insulator (SOI) wafer. The method includes providing an SOI wafer that has (i) a handle layer, (ii) a dielectric layer, and (iii) a device layer, wherein a mesa etch has been made on the device layer of the SOI wafer, providing a substrate, wherein a pattern has been etched onto the substrate, bonding the SOI wafer and the substrate together, removing the handle layer of the SOI wafer, removing the dielectric layer of the SOI wafer, then performing a structural etch on the device layer of the SOI wafer to define the device.